

Noxious Weeds II: What Can You Do To Stop a Disaster in Arizona?


by Larry D. Howery and George B. Ruyle

Introduction

The noxious weed problem in the United States has been described as, "a biological forest fire racing beyond control because no one wants to be fire boss." Indeed, when small weed infestations are left unchecked, they can grow and spread across the land much like a slow-moving biological wildfire. However, land consumed by wildfires usually recovers. Land consumed by noxious weeds may not. This brochure provides guidelines on how **you** can become part of the noxious weed "fire crew" in Arizona.

The Current Noxious Weed Problem in Arizona: There Is Good News and Bad News

The Good News

Many of the noxious weeds described in the first part of this work, [*"Noxious Weeds I: A Disaster Looking For A Place To Happen In Arizona!!"*](#), () occur in states north (e.g., Montana, Wyoming, North Dakota) and west (e.g., California) of Arizona. Reasons for this observation are largely speculative but may include:

- Arizona's warm climate may be less favorable for weeds requiring cooler temperatures compared to other areas.
- Arizonans do not feed as much hay to their livestock compared to other states-- hay and straw are common sources of noxious weed contamination.

The Bad News

Currently, there are many relatively small noxious weed infestations known to occur primarily in northern Arizona. Weed scientists believe these small

infestations may be primed to dramatically increase, explode exponentially, and cause wide-spread, irreparable damage just as has occurred in other states.

Which Noxious Weeds Are In Arizona?

[This map](#) shows the general locations of many noxious weed infestations that occur throughout Arizona. This information was obtained through a 1993 questionnaire and field survey conducted by the Arizona Interagency Noxious Weed Coordinating Committee (AINWCC), an ad hoc organization that deals with Arizona noxious weed issues. The AINWCC includes participants from the United States Forest Service, Bureau of Land Management, Bureau of Indian Affairs, Arizona Department of Transportation, Arizona Department of Agriculture, University of Arizona, and others. The map was generated before Arizona's noxious weed regulations went into effect in 1995 (see next section), and consequently contains some weed species that are not listed as noxious (e.g., bull thistle, musk thistle, yellow toadflax, and siverleaf nightshade).

Does Arizona Have Noxious Weed Regulations?

Yes. The Arizona Department of Agriculture is responsible for enforcing Arizona's noxious weed regulations which categorize noxious weeds into 3 groups:

Regulated, Restricted, and Prohibited.

- **Regulated noxious weeds** are those exotic plant species that are "well established and generally distributed in Arizona", according to the Arizona noxious weed regulations. There are 6 regulated noxious weed species in Arizona, including: southern sandbur (*Cenchrus echinatus*), [field sandbur](#) (*Cenchrus incertus*), [field bindweed](#) (*Convolvulus arvensis*), [burclover](#) (*Medicago polymorpha*), [common purslane](#) (*Portulaca oleracea*), and [puncturevine](#) (*Tribulus terrestris*). ⚠
- **Restricted noxious weeds** are those exotic plant species that "occur in Arizona in isolated infestations or very low populations", according to the Arizona noxious weed regulations. There are 15 restricted noxious weed species in Arizona:
 - [Russian knapweed](#) (*Acroptilon repens*) ⚠
 - [jointed goatgrass](#) (*Aegilops cylindrica*) ⚠
 - [camelthorn](#) (*Alhagi maurorum*) ⚠
 - [globed-podded hoary cress \(Whitetop\)](#) (*Cardaria draba*) ⚠
 - [diffuse knapweed](#) (*Centaurea diffusa*) ⚠

- [spotted knapweed](#) (*Centaurea maculosa*) ⚠
- [yellow starthistle](#) (St. Barnaby's thistle) (*Centaurea solstitialis*) ⚠
- [dodder](#) (*Cuscuta spp.*) ⚠
- [floating waterhyacinth](#) (*Eichhornia crassipes*) ⚠
- [quackgrass](#) (*Elymus repens*) ⚠
- [halogeton](#) (*Halogeton glomeratus*) ⚠
- [Texas blueweed](#) (*Helianthus ciliaris*)
- [three-lobed morning glory](#) (*Ipomoea triloba*)
- [dalmation toadflax](#) (*Linaria dalmatica*) ⚠
- [scotch thistle](#) (*Onopordum acanthium*) ⚠
- **Prohibited noxious weeds** are those exotic plant species that "do not occur in Arizona", according to the Arizona noxious weed regulations. There are 31 weed species classified as prohibited in Arizona's noxious weed regulations:
 - [alligator weed](#) (*Alternanthera philoxeroides*) ⚠
 - [lens podded hoary cress](#) (*Cardaria chalapensis*)
 - [hairy whitetop](#) (*Cardaria pubescens*) ⚠
 - [plumeless thistle](#) (*Carduus acanthoides*) ⚠
 - [purple starthistle](#) (*Centaurea calcitrapa*) ⚠
 - [Iberian starthistle](#) (*Centaurea iberica*)
 - [Sicilian starthistle](#) (*Centaurea sulphurea*)
 - [squarrose knapweed](#) (*Centaurea squarrosa*)
 - [rush skeletonweed](#) (*Chondrilla juncea*) ⚠
 - [Canada thistle](#) (*Cirsium arvense*) ⚠
 - [creeping wartcress](#) (greater swine cress) (*Coronopus squamatus*)
 - [dudaim melon](#) (Queen Anne's melon) (*Cucumis melo*)
 - [alfombrilla](#) (Lightningweed) (*Drymaria arenarioides*)
 - [anchored waterhyacinth](#) (*Eichhornia azurea*)
 - [leafy spurge](#) (*Euphorbia esula*) ⚠
 - [hydrilla](#) (Florida-elodea) (*Hydrilla verticillata*)
 - morning glory (*Ipomoea spp.*, all spp. except *aborescens*, *carnea*, and *triloba*, which are restricted)
 - [dyers woad](#) (*Isatis tinctoria*) ⚠
 - [purple loosestrife](#) (*Lythrum salicaria*) ⚠
 - [serrated tussock](#) (*Nassella trichotoma*)
 - [branched broomrape](#) (*Orobanche ramosa*)
 - [torpedo grass](#) (*Panicum repens*)
 - [African rue](#) (*Peganum harmala*)
 - [kikuyu grass](#) (*Pennisetum clandestinum*)
 - [Austrian fieldcress](#) (*Rorippa austriaca*)
 - [tansy ragwort](#) (*Senecio jacobaea*)
 - [Carolina horsenettle](#) (*Solanum carolinense*)
 - [perennial sowthistle](#) (*Sonchus arvensis*)
 - [puna grass](#) (*Achnatherum brachychaetum*, was *Stipa brachychaeta*)
 - [witchweed](#) (*Striga spp.*)
 - [water-chestnut](#) (*Trapa natans*)

What Can You Do About Noxious Weeds In Arizona?

As with wildfires, the four following methods are used to control the spread of noxious weeds: 1) Prevention, 2) Detection, 3) Control, and 4) Site Rehabilitation. Fortunately for Arizona, prevention and detection are still the most effective and least expensive ways to control the spread of noxious weeds. This is because we are in the early stages of infestation compared to other states. However, if we don't implement prevention and detection measures, control and site rehabilitation will ultimately be difficult, if not impossible. Your role as a concerned citizen in taking action against the spread of noxious weeds will probably fall primarily under prevention and detection.

Prevention

Some important prevention rules to remember are:

- Drive, hike, ride, and camp only on established roads and trails away from infested areas.
- Feed pack animals only feed that is certified "weed free" within 96 hours before entering non-infested areas.
- When using pack animals in non-infested areas, carry only feed that is certified "weed free".
- Do not buy noxious weed seeds from seed companies (e.g., purple loosestrife), or noxious weeds from flower shops (e.g., tall white top) or pet shops (e.g., hydrilla).

Detection

Some important detection rules to remember are:

- Learn the plants so you can identify them if encountered in the field. This brochure will give you a good start in identifying weeds in the flowering stage. Refer to other books (e.g., "Weeds of the west") to obtain photos of weeds in the vegetative (pre-flowering) stage.
- If you must drive, bike, hike, ride, or camp in infested areas, remove all weed seeds from vehicles, clothing, pack animals, and camping gear before proceeding to a non-infested area.
- If you find noxious weeds without flowers or seeds, pull them and leave them where found. If flowers are present, pull and place weeds in a plastic bag, and burn them in a safe place.

- Do not pick weeds and take them home.
- If you find a weed infested area, let the land owner or land managing agency know so that they can take steps to eradicate or control the weeds.
- If you operate heavy equipment in weed infested areas, clean it thoroughly before moving to non-infested areas.

Control

If you are a private land owner with a noxious weed problem, you may want to consider control and site rehabilitation actions. However, we strongly encourage you to first consult with experts and appropriate land management officials before attempting any control or site rehabilitation measures on your own. The four following techniques are used to control the spread of noxious weeds: cultural, chemical, biological, and mechanical (physical) controls.

- **Cultural control** involves educating yourself so you can identify noxious weeds, and then implement proper land management practices that deter spreading (e.g., proper grazing management, proper fertilization and irrigation practices, and seeding desirable plant species).
- **Chemical control** involves using herbicides to reduce or eradicate weed infestations.
- **Biological control** involves using beneficial organisms (e.g., moths, butterflies, web worms, weevils, caterpillars, cattle, sheep, goats) that feed on specific noxious weeds.
- **Mechanical or physical control** involves disrupting or halting the growth of noxious weeds by tilling, mowing, mulching, burning, covering, or flooding.

Site Rehabilitation

Site rehabilitation should always be implemented to prevent noxious weeds from becoming reestablished after control techniques have been successful.

- Site rehabilitation incorporates careful monitoring of a noxious weed problem that has been successfully controlled, and using one or some combination of the three control techniques as necessary to stay on top of the problem.
- Site rehabilitation may require a substantial time commitment and include repeated follow-up control measures.

Summary

Congratulations!! You have taken the time to educate yourself about one of the most serious problems today threatening Arizona's public and private lands. Please don't keep this information to yourself. Share it with your friends and coworkers. You know what noxious weeds have done in other areas. Lets not let it happen in Arizona. Smoky Bear continually reminds us, "Only **You** can prevent forest fires!! Lets continually remind ourselves and others, "Only **You** can prevent the spread of noxious weeds".

References



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- Whitson, T. D. 1992. Weeds of the west. University of Wyoming.
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Who Can I Contact To Learn More About Noxious Weeds?

Arizona Department of Transportation
Arizona Department of Agriculture
Arizona Cooperative Extension Service
Bureau of Land Management

United States Forest Service

Natural Resource Conservation Service

 = AZ AgNIC resources  = Outside resources

<http://ag.arizona.edu/agnic/az/weeds/noxiousweeds2.html>